

and transmitting the second media-corresponding data with the header data removed to said second processing unit.

5 2. An IP communication interface device according to claim 1, wherein the first and second media-corresponding data include voice data transmitted from a voice terminal having a voice communication function, facsimile data transmitted from a facsimile terminal having a facsimile communication function and data transmitted from a data terminal having a data communication function.

10 3. An IP communication interface device according to claim 2, wherein said first and second processing units are functionally divided corresponding to the voice data, the facsimile data and the data that correspond to the first and second media-corresponding data, and

15 said IP communication interface device further comprises a selecting unit for selecting said first functionally divided processing unit in accordance with a command given from said third processing unit.

20 4. An IP communication interface device according to claim 2, wherein said second processing unit, when the first media-corresponding data are the voice data or the facsimile data, generates packet-assembled media-corresponding data to which an RTP for enabling a real time transport to be done is

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added.

5. An IP communication interface device according to claim 4, wherein said second processing unit, when the second media-corresponding data are the voice data or the facsimile data, generates packet-deassembled media-corresponding data from which the RTP for enabling the real time transport to be done is removed.

6. An IP communication interface device according to claim 2, wherein said third processing unit, when the packet-assembled media-corresponding data generated by said second processing unit are the voice data or the facsimile data, adds a UDP header and an IP header as the header data, and, when the packet-assembled media-corresponding data are the essential data, adds a TCP header and an IP header as the header data.

7. An IP communication interface device according to claim 6, wherein said third processing unit, when the second media-corresponding data are the voice data or the facsimile data, removes the UDP header and the IP header added as the header data, and, when the second media-corresponding data are the essential data, removes the TCP header and the IP header added as the header data.

8. An IP communication interface device according to claim 1, wherein said third processing unit identifies a call control

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signal as D-channel data in accordance with a message based on a specified protocol, and penetratingly transmits and receives the call control signal simply by adding and removing the TCP header and the IP header.

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9. An IP communication interface device according to claim 1, wherein said first and second connecting units and said first, second and third processing units are mounted in a package card.

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10. A circuit switch comprising:

a highway switch accommodating at least one of a voice terminal having a voice communication function, a facsimile terminal having a facsimile function and a data terminal having a data communication function, and including a time division multiplexing transmission path for transmitting data corresponding to media;

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a first connecting unit connected directly to said highway switch;

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a second connecting unit for accommodating a LAN line connected to an IP packet switched network;

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a first processing unit for coding first media-corresponding data as B-channel data inputted to said first connecting unit, decoding packet-deassembled media-corresponding data into which a packet of second media-corresponding data inputted to said second connecting unit is deassembled, and transmitting the decoded media-corresponding data to said first connecting unit in order

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to forward the same decoded media-corresponding data as the first media-corresponding data to said highway switch;

a second processing unit for assembling the coded media-corresponding data coded by said first processing unit, 5 deassembling the packet of the second media-corresponding data, and transmitting the second media-corresponding data as the packet-deassembled media-corresponding data to said first processing unit; and

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10 a third processing unit for generating the second media-corresponding data by adding predetermined header data to the packet-assembled media-corresponding data assembled into a packet by said second processing unit, forwarding the second media-corresponding data to said LAN via said second connecting unit, removing the header data added to the second 15 media-corresponding data inputted to said second connecting unit, and transmitting the second media-corresponding data with the header data removed to said second processing unit.

11. A circuit switch according to claim 10, wherein the 20 first and second media-corresponding data include voice data transmitted from a voice terminal having a voice communication function, facsimile data transmitted from a facsimile terminal having a facsimile communication function and data transmitted from a data terminal having a data communication function.

25 12. A circuit switch according to claim 11, wherein said first and second processing units are functionally divided

corresponding to the voice data, the facsimile data and the data that correspond to the first and second media-corresponding data, and

5 said IP communication interface device further comprises a selecting unit for selecting said first functionally divided processing unit in accordance with a command given from said third processing unit.

10 13. A circuit switch according to claim 11, wherein said second processing unit, when the first media-corresponding data are the voice data or the facsimile data, generates packet-assembled media-corresponding data to which an RTP for enabling a real time transport to be done is added.

15 14. A circuit switch according to claim 13, wherein said second processing unit, when the second media-corresponding data are the voice data or the facsimile data, generates packet-deassembled media-corresponding data from which the RTP for enabling the real time transport to be done is removed.

20 15. A circuit switch according to claim 11, wherein said third processing unit, when the packet-assembled media-corresponding data generated by said second processing unit are the voice data or the facsimile data, adds a UDP header and an IP header as the header data, and, when the packet-assembled media-corresponding data are the essential data, adds a TCP header and an IP header as the header data.

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16. A circuit switch according to claim 15, wherein said
third processing unit, when the second media-corresponding data
are the voice data or the facsimile data, removes the UDP header
5 and the IP header added as the header data, and, when the second
media-corresponding data are the essential data, removes the
TCP header and the IP header added as the header data.

17. A circuit switch according to claim 10, wherein said
10 third processing unit identifies a call control signal as
D-channel data in accordance with a message based on a specified
protocol, and penetratingly transmits and receives the call
control signal simply by adding and removing the TCP header and
the IP header.

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18. A circuit switch according to claim 10, wherein said
first and second connecting units and said first, second and
third processing units are mounted in a package card.

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19. An IP communication network system including a circuit
switch comprising:

a highway switch accommodating at least one of a voice
terminal having a voice communication function, a facsimile
terminal having a facsimile function and a data terminal having
25 a data communication function, and including a time division
multiplexing transmission path for transmitting data
corresponding to media;

a first connecting unit connected directly to said highway switch;

a second connecting unit for accommodating a LAN line connected to an IP packet switched network;

5 a first processing unit for coding first media-corresponding data as B-channel data inputted to said first connecting unit, decoding packet-deassembled media-corresponding data into which a packet of second media-corresponding data inputted to said second connecting unit
10 is deassembled, and transmitting the decoded media-corresponding data to said first connecting unit in order to forward the same decoded media-corresponding data as the first media-corresponding data to said highway switch;

a second processing unit for assembling the coded
15 media-corresponding data coded by said first processing unit, deassembling the packet of the second media-corresponding data, and transmitting the second media-corresponding data as the packet-deassembled media-corresponding data to said first processing unit; and

20 a third processing unit for generating the second media-corresponding data by adding predetermined header data to the packet-assembled media-corresponding data assembled into a packet by said second processing unit, forwarding the second media-corresponding data to said LAN via said second connecting
25 unit, removing the header data added to the second media-corresponding data inputted to said second connecting unit, and transmitting the second media-corresponding data with the

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header data removed to said second processing unit.

20. An IP communication network system including an IP communication interface device comprising:

5 first and second connecting units for making it possible to dispose between a switched circuit network and LAN connected to an IP packet switched network;

 a first processing unit for coding first
media-corresponding data as B-channel data inputted to said first
10 connecting unit from said switched circuit network, decoding packet-deassembled media-corresponding data into which a packet of second media-corresponding data inputted to said second connecting unit from said LAN is deassembled, and for transmitting the decoded media-corresponding data to said first
15 connecting unit for forwarding the same data as the first media-corresponding data to said switched circuit network;

 a second processing unit for assembling the coded media-corresponding data coded by said first processing unit into a packet, deassembling the packet of the second
20 media-corresponding data, and transmitting the same data as packet-deassembled media-corresponding data to said first processing unit; and

 a third processing unit for generating the second media-corresponding data by adding predetermined header data
25 to the packet-assembled media-corresponding data assembled into a packet by said second processing unit, forwarding the second media-corresponding data to said LAN via said second connecting

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unit, removing the header data added to the second media-corresponding data inputted to said second connecting unit, and transmitting the second media-corresponding data with the header data removed to said second processing unit.

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